New records of weavers using man-made structures for nesting

H. Dieter Oschadleus

Nouvelles mentions de tisserins utilisant des constructions artificielles pour nicher. Les nids de tisserins sont d'habitude suspendus à des arbres ou des roseaux. L'auteur rapporte la nidification de Tisserins du Cap *Ploceus capensis* dans des nids suspendus à des constructions artificielles: (a) le toit d'une grange et (b) les caillebotis de champs d'épandage. Les deux colonies comportaient des nids occupés. Les nids de trois colonies de Tisserins écarlates *Anaplectes rubriceps* étaient suspendus à des poutres supportant des toits de chaume. Un de ces nids était occupé par un couple d'Amadines cou-coupé *Amadina fasciata*. Des photos sont présentées de Tisserins intermédiaires *Ploceus intermedius* nichant dans des nids suspendus au bord d'un toit de chaume. De nombreux nids étaient suspendus les uns en dessous des autres. Le fait que les Tisserins écarlates et intermédiaires suspendent parfois leurs nids à des toits de chaume avait été signalé auparavant. L'utilisation de constructions artificielles pour y suspendre des nids a également été rapportée chez d'autres espèces de tisserins, telles que le Républicain social *Philetairus socius*, le Tisserin à tête rousse *Ploceus velatus* et le Tisserin gendarme *P. cucullatus*, mais ces observations doivent être considérées comme exceptionnelles. La mention concernant un Sporopipe squameux *Sporopipes squamifrons* semble être erronée. L'utilisation de constructions artificielles pour la nidification pourrait réduire le risque de prédation et, dans certains cas, fournir un meilleur abri aux oeufs et aux jeunes.

Building nests close to habitation is well known for some weaver species and is considered a measure to reduce predation by wild animals, birds and reptiles (Collias & Collias 1964). Several weaver species breed on man-made structures, especially telephone wires and poles, fences and windmills (Fry & Keith 2004), although these sites are usually far from habitation, and are not reviewed here. A few species have been recorded to build their nests on structures inhabited or used by humans (Table 1). Here I report the first records of Cape Weavers *Ploceus capensis* breeding inside a building and under a service walkway. I also report unpublished records of Red-headed Weavers *Anaplectes rubriceps* and Lesser Masked Weavers *Ploceus intermedius* suspending their nests from buildings, although these two species have previously been recorded to exhibit such behaviour (Table 1). The records presented here are of active breeding nests.

Cape Weavers breeding under roof of farm shed

On 19 November 2003 I was ringing with a group on Malkopbaai farm (32°08'S 18°18'E) at Lamberts Bay, Western Cape, South Africa. We worked in the large farm shed containing farm equipment. The shed was open at the front and had an open doorway at the back, permitting easy access for sparrows and weavers. I noticed 31 Cape Weaver nests suspended from the wooden beams supporting the roof of the shed. Most nests were attached wherever wire or plastic strands looped around the beams (Fig. 1), and two were hanging from other nests. Many nests were untidy, suggesting that they may have been built by immature males (Elliott 1973). Two were breeding nests.

Nest A contained two large chicks, which were ringed. Nest B had three smaller chicks, which were too small to be ringed. The nests were observed from 07.45 to 11.30 hrs. Hanging from the nest (Fig. 2), the female of nest A fed the chicks 24 times in 3 hrs 45 minutes, i.e. 6.4 feeds per hour; as the chicks would call on these occasions, feeding events were unlikely to be overlooked. The chicks of nest B were quiet, and the female usually flew quickly into the nest to feed and brood them, thus no accurate feeding rate could be established. A single adult male that often perched on a nearby girder or rope (Fig. 1) was the apparent owner of these two nests.

On 21 November we returned to ring at the same site. Nest A was observed from 06.12 to 11.34 hrs, during which time there were 40 feeds,

i.e. 7.4 per hour. The female of nest B was observed visiting at least 14 times in the same period, but again many visits may have been missed.

These feeding rates lie within the range of 3.7–22.2 feeds/hour at Cape Weaver nests (n=375) recorded by Elliott (1973) in trees and reeds in the Western Cape.

Cape Weavers breeding under service walkway

On 28 October 2001 I visited Strandfontein sewage works, Cape Town (34°04'S 18°31'E), South Africa, where Cape Weaver nests were suspended from the latticed service walkways running to the centre of each pond, 1–2 m above the sludge (Figs. 3–4). The attachments of each nest were on several sections of the lattice grids (Fig. 5). There were 1–10 nests per pond, with a total of 31 nests at eight ponds. A year later I counted eight nests on 12 October 2002 and 20 on 4 November. There were five active nests in 2001 and at least two in 2002 (determined by watching females flying to and from their nests to incubate or feed chicks). In 2001 there had been one male per pond, except at pond 'CS' where there were two. One male, colour-ringed at colony 'AS', was found to have eight nests. In 2002 the same individual was observed at colony 'CS' with a single nest, whilst there were no nests at 'AS'.

Of the six Cape Weavers that were colour-ringed at Strandfontein in November 2001, one was resighted near the main centre complex, adjacent to the ponds, on 14 July 2002 (B. Trevis pers. comm.). This indicates that the bird wintered at Strandfontein, although Cape Weavers may move widely over the Cape Peninsula.

Red-headed Weaver's nests suspended from roofs

On 26 October 1997, three colonies of Red-headed Weavers were found at Robert's Ranch (25°25'S 27°45'E), near Brits, Northwest Province, South Africa.

Colony A was situated behind the main farmhouse, where the nests were suspended from the beams supporting the thatched roof (Fig. 6). The

Table 1. Records of weaver nests built on structures inhabited or used by humans.

Tableau 1. Observations de nids de tisserins suspendus à des structures habitées ou utilisées par l'Homme.

Species	Nest site	Location	Reference
Sociable Weaver *Philetairus socius*	supporting beams under roof of lean-to shed	Brandvlei-Vanwyksvlei, Northern Cape, South Africa	Brooke & Harrison 1992
Red-headed Weaver *Anaplectes rubriceps*	inside buildings	East Africa	Britton 1980
	beam of thatched roof of veranda	Njakwa, Malawi	Benson 1953
	beams supporting thatched roof of farmhouse	Robert's Ranch, North-west Province, South Africa	this study
Cape Weaver *Ploceus capensis*	support beams of roof of large farm shed	Lamberts Bay, Western Cape, South Africa	this study
	service walkway	Strandfontein, Western Cape, South Africa	this study
Lesser Masked Weaver *P. intermedius*	thatch above door; under eaves of hut	Mkuzi Game Reserve, KwaZulu-Natal, South Africa	Jay 1994
	creeper under roof eaves of mine offices	Messina, Limpopo Province, South Africa	Tarboton 1965
	under eaves of buildings	Shingwedzi, Kruger National Park, South Africa	this study
Southern Masked Weaver *P. velatus*	on creepers of veranda	Waddilove Institution, Zimbabwe	Priest 1936
Village Weaver *P. cucullatus*	netting wire under hotel eaves	Beit Bridge, Limpopo Province, South Africa	Redd 1962
Baya Weaver *P. philippinus*	palm-leaf thatching of tenanted village huts	India	Ali & Ripley 1974
	verandas of houses	Burma	Smythies 1940

colony contained nine nests, most hanging directly from the roof, with some suspended below other nests. One nest contained chicks, which were being fed by an adult female. An old nest had been commandeered by Cut-throat Finches *Amadina fasciata*, with finch chicks present in the nest. The other nests were empty, probably having been built in previous seasons. On the next visit, on 21 November, both weaver and finch chicks had apparently fledged, but there was one new nest, in which a female Red-headed Weaver was incubating one egg. On 23 November the female was incubating three eggs. Two days later, the female was absent and a pair of Cut-throat Finches flew out of the nest, which was found to contain three cold weaver eggs. The reason for the desertion by the weavers is unknown.

In Colony B two nests were hanging from the beams supporting the thatched roof of an office near the main farmhouse. One nest was old and empty, whilst the other contained chicks. In November the colony was visited again but there was no activity: the chicks had probably fledged and no new nests had been built. Colony C was several kilometres away in a disused restaurant, with three deserted nests hanging from the beams supporting the thatched roof. On 23 and 25 November a male was present, but there were no active nests.

These are the first published records of Red-headed Weavers suspending their nest from buildings in southern Africa, although there are records from Malaŵi and East Africa (Table 1). These observations suggest that nesting on man-made structures may be a widespread habit of this species in certain parts of Africa.

Lesser Masked Weaver's nests suspended from roof

I was given two photographs, taken in early February 1997, of Lesser Masked Weavers breeding in nests suspended from the edge of the thatched roof of a building at Shingwedzi campsite (23°06'S 31°26'E), northern Kruger National Park, South Africa (Figs. 7–8). The nests were probably attached to the wire that held the thatch onto the wooden beams. Many were suspended below each other. There were also nests in a nearby tree. Records of these weavers using buildings for nesting have been published previously (Table 1).

Discussion

Cape Weavers usually suspend their nests from trees and reeds (Fry & Keith 2004). Man-made sites include fences (Tarboton 2001) and telephone wires (Skead 1995). To reduce predation risk, they may be attached to thin twigs over water (Moreau 1942, Craig 1995). The domed nest also protects its contents from rain, sun and, to some extent, wind (Collias & Collias 1964, Oschadleus 1995). Attaching nests under a roof or to the service walkway as described above, would provide additional shelter, especially from wind, and probably also offer protection from avian predators. Cape Weavers usually breed in multi-male colonies (Fry & Keith 2004). Only one male was present at the farm shed, whilst at the sewage ponds the males were spread out over a larger area than is usual for a colony (pers. obs.). Thus man-made sites may limit colony size, but do provide new sites to be used.

Red-headed Weavers usually build their nests high in tall trees, except when attaching them to telephone wires or buildings. At Robert's Ranch, *Acacia* and other trees provided natural sites near the farmhouse, but these were not used.

With the records of Cape Weaver reported above, seven weaver species are now known to build their nests on structures inhabited or used by humans (Table 1). Several records exist for Lesser Masked Weaver, Red-headed Weaver and Asian Baya Weaver *Ploceus philippinus* (Ali & Ripley 1974, Smythies 1940). The single records for Cape Weaver, Sociable Weaver *Philetairus socius*, Southern Masked Weaver *Ploceus velatus* and Village Weaver *P. cucullatus* can be considered as irregular or unusual occurrences. Winterbottom (1971) mentioned a record of Scaly-fronted Weaver *Sporopipes squamifrons* nesting under the eaves of houses, but this seems to be an error: Winterbottom (1971) is a revision of Priest's (1948) work, but the latter only reported a 'single thorn tree' as the nesting site for this species. Winterbottom presumably realised this error, as he omits mention of this unusual nest site in his subsequent extensive writings.

In all these documented cases, buildings are possibly used to reduce predation risk and provide additional shelter for eggs and chicks.

Figure 1. Cape Weaver *Ploceus capensis* nests suspended from beams of a farm shed, Malkopbaai farm, Lamberts Bay, Western Cape, South Africa; male perched on hanging rope (Dieter Oschadleus)

Nids de Tisserins du Cap *Ploceus capensis* suspendus à des poutres d'une grange, ferme de Malkopbaai, Lamberts Bay, Western Cape, Afrique du Sud; mâle accroché à une corde suspendue (Dieter Oschadleus)

Figure 2. Female Cape Weaver *Ploceus capensis* feeding chicks in nest A, Malkopbaai farm, Lamberts Bay, Western Cape, South Africa (Dieter Oschadleus)

Tisserin du Cap *Ploceus capensis* femelle nourissant les jeunes du nid A, ferme de Malkopbaai, Lamberts Bay, Western Cape, Afrique du Sud (Dieter Oschadleus)

Figure 3. Cape Weaver *Ploceus capensis* nests suspended from the service walkway over a pond at Strandfontein Sewage Works, Western Cape, South Africa; nests indicated by arrows (Dieter Oschadleus)

Nids de Tisserins du Cap *Ploceus capensis* suspendus au caillebotis surplombant une mare à Strandfontein, Western Cape, Afrique du Sud; les nids sont indiqués par des flèches (Dieter Oschadleus)

Figure 4. Male Cape Weaver *Ploceus capensis* hanging from a new nest and female feeding chicks at a colony under a service walkway at Strandfontein Sewage Works, Western Cape, South Africa (Dieter Oschadleus)

Tisserin du Cap *Ploceus capensis* mâle accroché à un nouveau nid et femelle nourissant des jeunes dans une colonie sous un caillebotis d'un champ d'épandage à Strandfontein, Western Cape, Afrique du Sud (Dieter Oschadleus)

Figure 5. Attachment of Cape Weaver *Ploceus capensis* nests to a service walkway at Strandfontein Sewage Works, Western Cape, South Africa (Dieter Oschadleus)

Nids de Tisserins du Cap *Ploceus capensis* accrochés à un caillebotis d'un champ d'épandage à Strandfontein, Western Cape, Afrique du Sud (Dieter Oschadleus)

Figure 6. Red-headed Weaver *Anaplectes rubriceps* nests suspended from the beams supporting the thatched roof of a farmhouse at Robert's Ranch, Northwest Province, South Africa (Dieter Oschadleus)

Nids de Tisserins écarlates *Anaplectes rubriceps* suspendus à des poutres supportant un toit de chaume à Robert's Ranch, Northwest Province, Afrique du Sud (Dieter Oschadleus)

Figures 7–8. Lesser Masked Weaver *Ploceus intermedius* nests suspended from the edge of the thatched roof of a building at Shingwedzi campsite, Kruger National Park, South Africa (Billy Noble)

Nids de Tisserins intermédiaires *Ploceus intermedius* suspendus au bord d'un toit de chaume au campement de Shingwedzi, Parc national Kruger, Afrique du Sud (Billy Noble)

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Avian Demography Unit, Department of Statistical Sciences, University of Cape Town, Rondebosch 7701, South Africa. E-mail: dieter@adu.uct.ac.za